

Evolution may then be defined as the development rather of impulses than of organs. Some of these affect the body others the character and in tracing the affinities of plants and animals. and of races of mankind. we are as likely to find clues in behaviour as in bodily features. The evolution of species in the world of life has been commonly attributed to natural or sexual selection. But this confuses a condition with a cause. Evolution must proceed from a changefulness that is inherent in living creatures, for, unless changes occurred. there would. indeed. be nothing for selection to act upon. It would be pleasing to feel that this changefulness was systematically directed towards the organism's benefit. But against such a supposition there is an overwhelming mass of evidence. Variations occur in every direction. Those that are harmful are eliminated by the struggle for life : those that are beneficial. or harmless. may survive. But we need not assume. on the evidence that has been collected. that variation is entirely uncontrolled. —that in no case is it directed by outside influences. Facts are very numerous which appear to indicate that plants and animals may be stimulated to vary their forms or dispositions by their environment. by their habits. or by the imitative impulse : and in this case the variations would be generally to their advantage. We cannot absolutely deny

that the giraffe may have been stimulated to vary so as to lengthen its neck. by continued striving after higher foliage: that the migration of swallows is not impelled by an instinct which was generated by habit. or that Arctic animals did not gradually acquire the faculty of turning white during winter by subconscious imitation of the colour of snow.

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